

Abstract

Methods and apparatus are described and illustrated for producing GPS corrections, comprising: collecting measurements from a plurality of network reference stations; determining network corrections from the measurements; determining residual errors at one or more vernier-cell reference stations; and preparing vernier-cell corrections to compensate the residual errors within a vernier-cell region. Network correction streams are described and illustrated which contain network corrections derived from a plurality of network reference stations and residual error corrections derived from one or more vernier-cell reference stations. Methods and apparatus are described for employing such network correction streams in a virtual reference station to produce corrections and/or virtual measurements for use in a GPS receiver.